SCOR Annual Conference

3 & 4 October 2019

The acceleration of Hubs, Networks & Connectivity

How to ensure sustainability of insurability and its development?

Climate Change – The Great Disruptor?

Junaid Seria

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Executive summary

- Climate Change and Extreme Events – managing the uncertainties
- Societal response – transitioning to a low carbon economy
- Re/insurance – a sustainable business model?

Climate Change & Extreme Events

2019 CO_2 415 ppm

+ 100 ppm

1960 CO_2 315 ppm

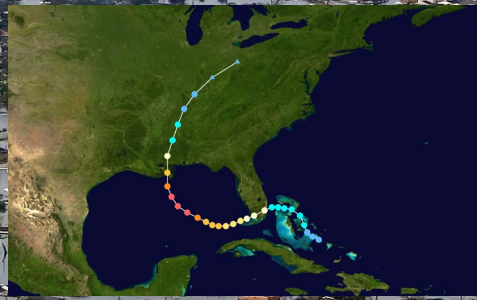
2010s warming 0.9°C

+ 0.5°C

1980s warming 0.4°C

Source: Dr. Emily Shuckburgh, Environmental Data Science Group, Cambridge University


2017 Harvey (Houston, TX, US)
Econ. Cost: USD 130 bn
Fatalities: 107

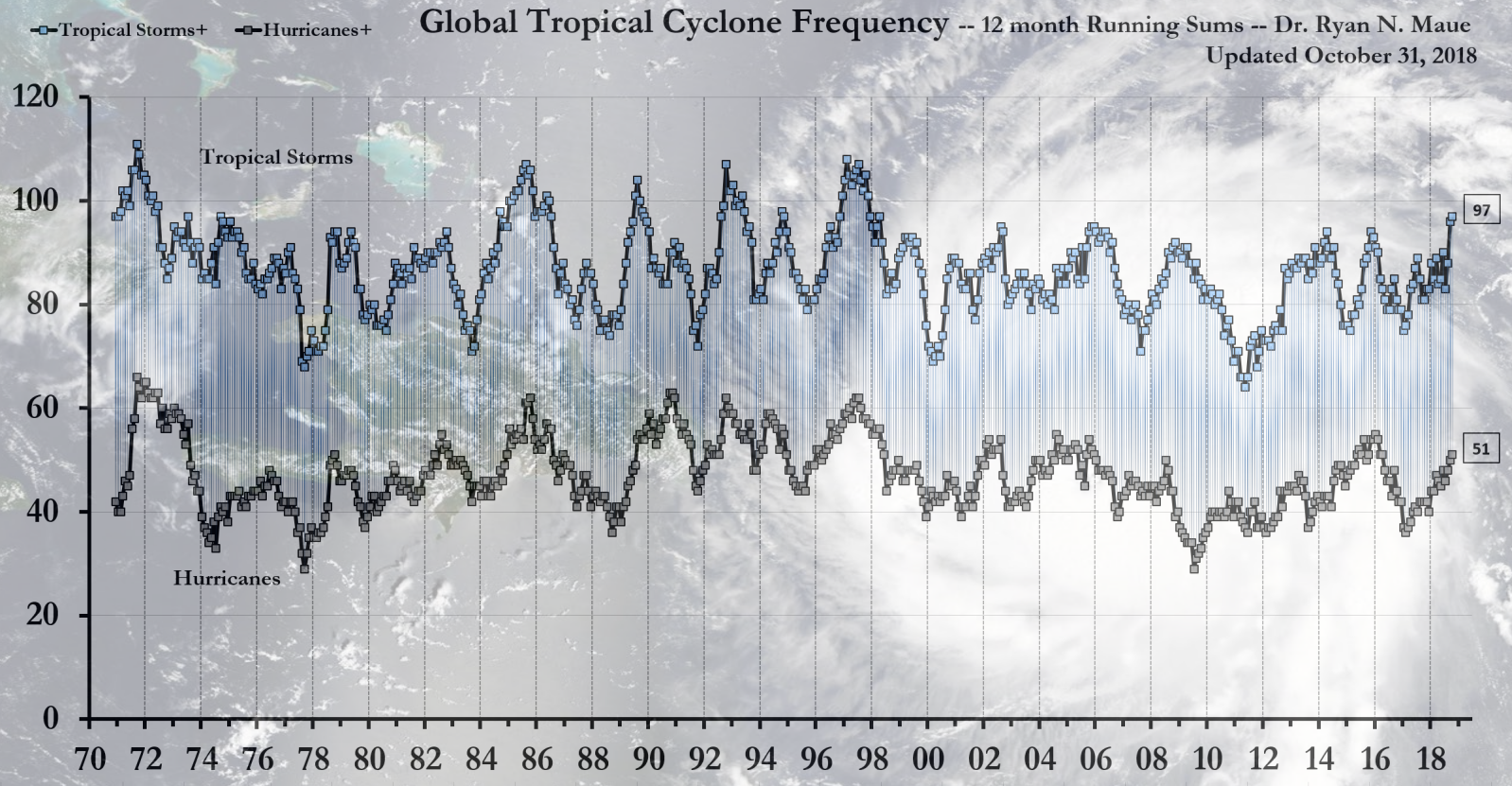


2005 Katrina (New Orleans, LA, US)
Econ. Cost: USD 165 bn
Fatalities: ~1,500

Capital Weather Gang

What's driving our major hurricane landfall drought? Study says it's just dumb luck.

Source: Washington Post, 30 April 2015, https://www.washingtonpost.com/news/capital-weather-gang/wp/2015/04/30/whats-driving-our-major-hurricane-landfall-drought-study-says-its-just-dumb-luck/



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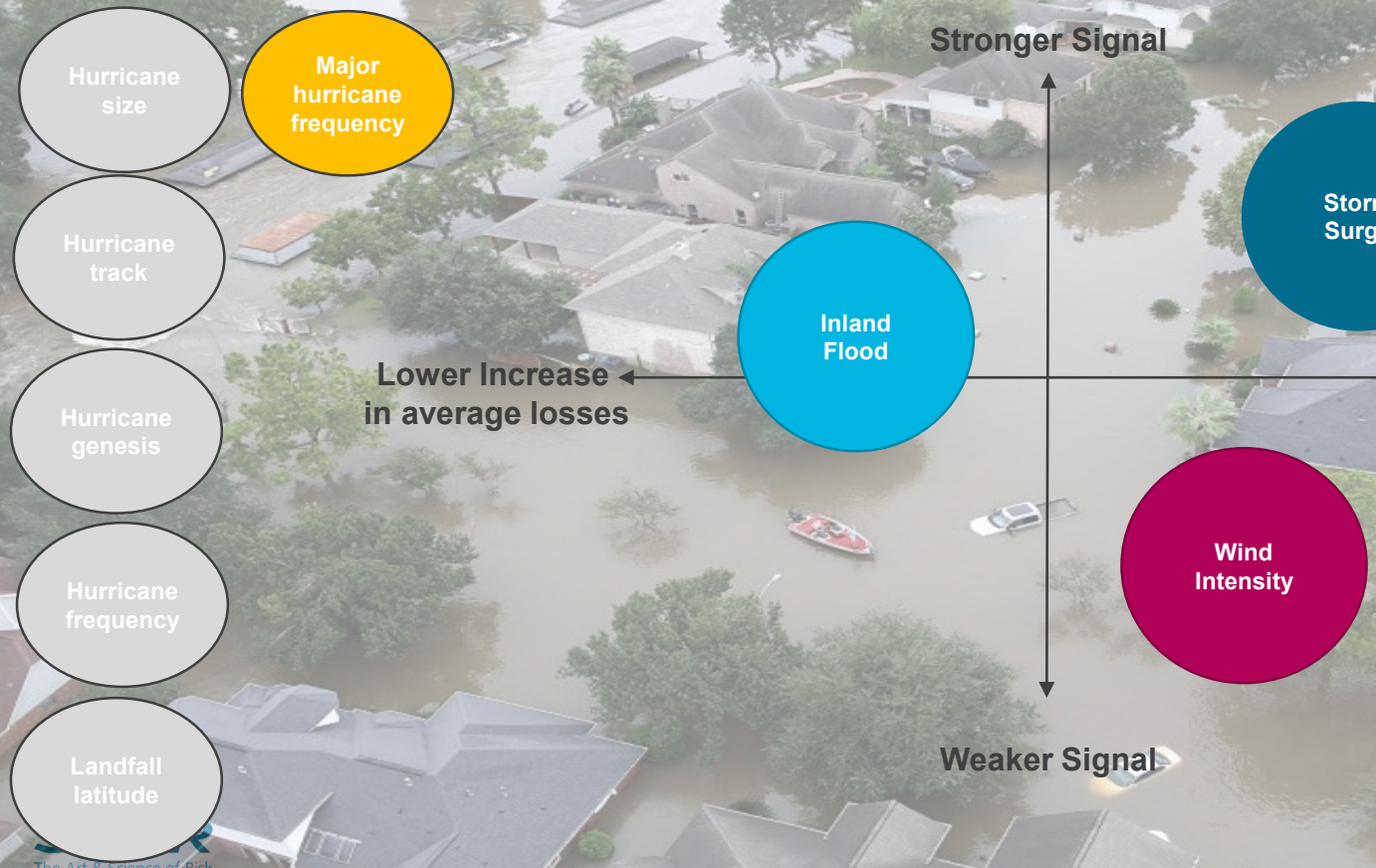
North Atlantic Tropical Cyclones



Climate Change and Extreme Events

Little or no rain

Increased & reduced EU wind *storminess*

Extreme precipitation (rain and snow)

High-tide flooding and increased storm surge

Extreme heat

Tornados and thunderstorms

Western wildfire activity

More intense hurricanes

Parched soil

Extreme rainfall from hurricanes

Weakest Evidence — Growing Evidence

Strong Evidence — Strongest Evidence

https://www.ucsusa.org/sites/default/files/attach/2018/06/The-Science-Connecting-Extreme-Weather-to-Climate-Change.pdf

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1.5 million people are added to the global urban population **every week**

Source: PwC analysis (United Nations Population Division (2014))

85% of global GDP was generated in cities

Source: The New Climate Economy, Seizing the Global Opportunity

$8 trillion in infrastructure spending will be needed in ***New York***, ***Beijing***, ***Shanghai*** and ***London*** over the next **10 years**

Source: PwC analysis

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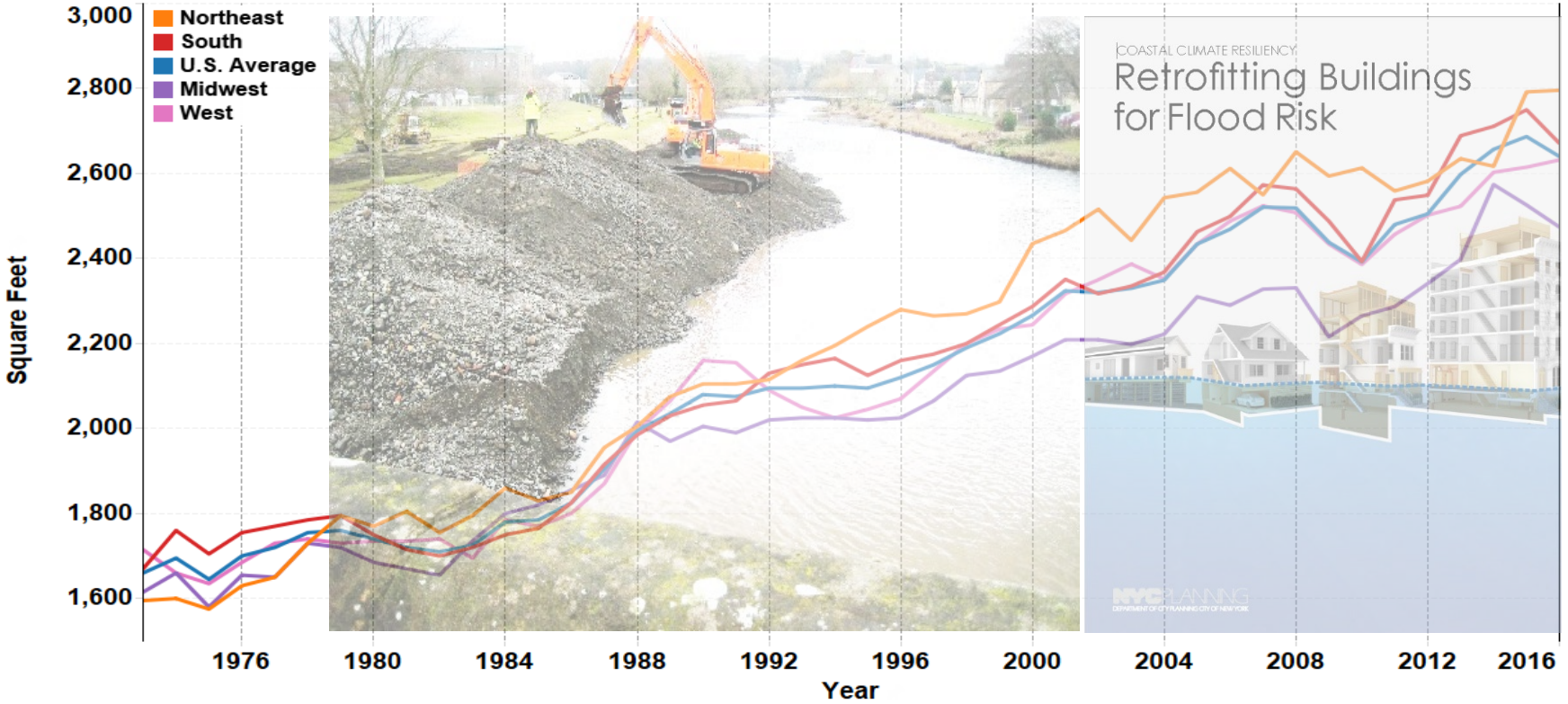
Building stock and vulnerability changes



1) Source: Klotzbach et. al., 2018

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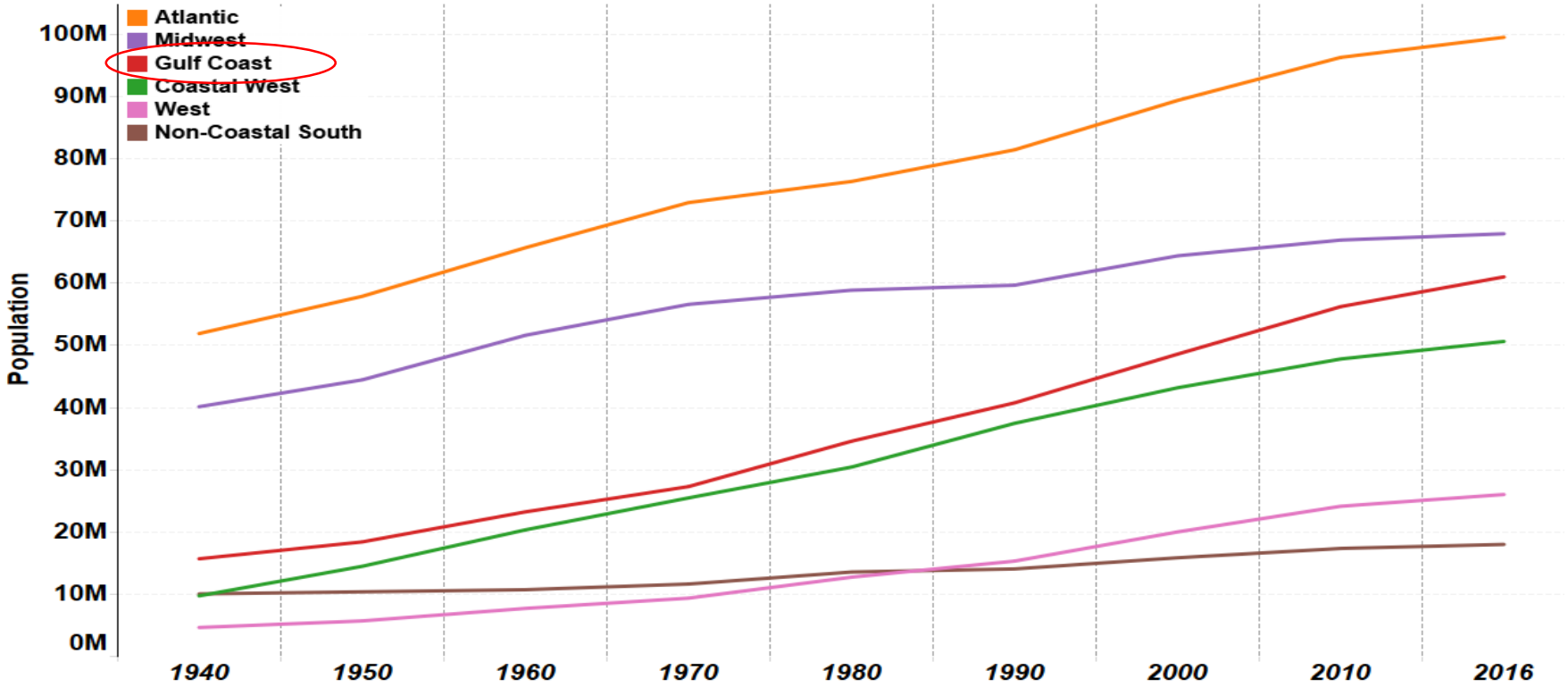
US Population Growth



1) Source: Klotzbach et. al., 2018

BANK OF ENGLAND

THE GENEVA ASSOCIATION

A framework for assessing financial impacts of physical climate change

A practitioner's aide for the general insurance sector

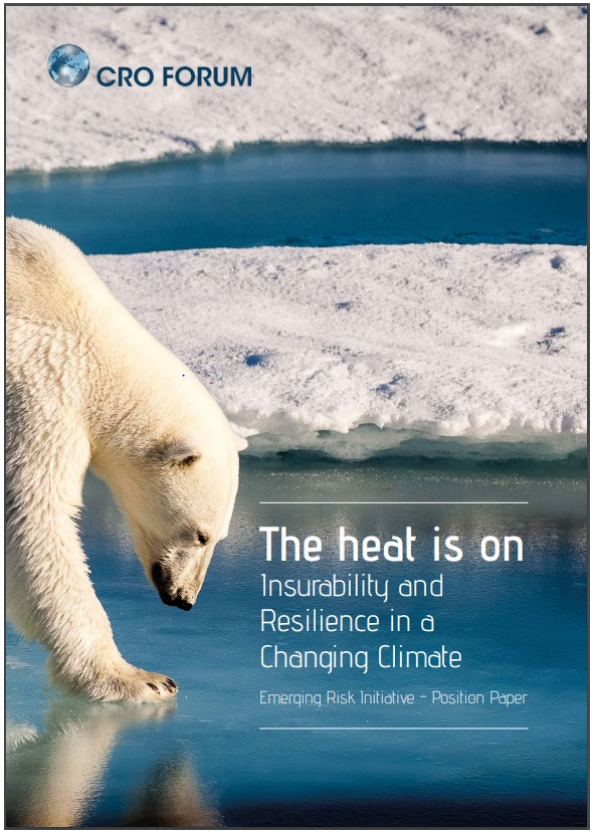
May 2019

DF Insurance Development Forum

InsuResilience GlobalPartnership

PSI Principles for Sustainable Insurance

oasis LOSS MODELLING FRAMEWORK



eiopa EUROPEAN INSURANCE AND OCCUPATIONAL PENSIONS AUTHORITY

SOCIETY OF ACTUARIES

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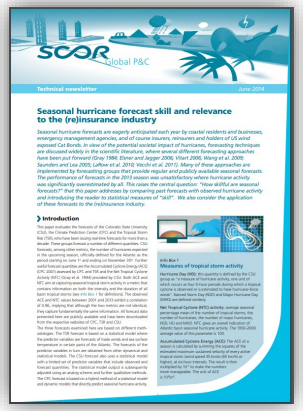

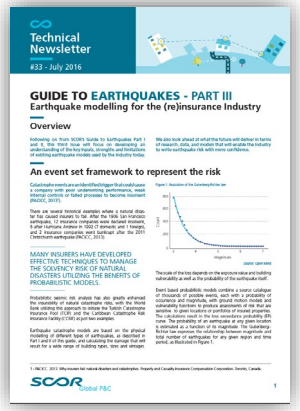

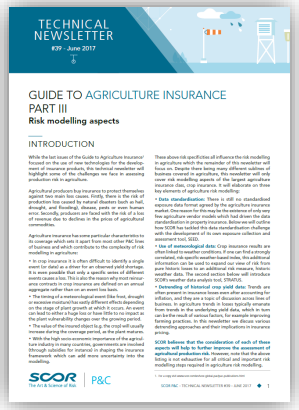

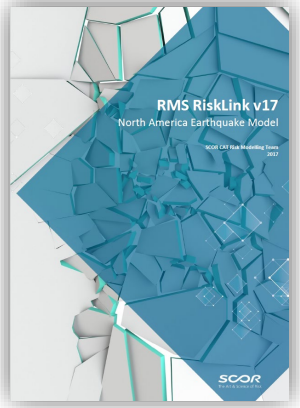

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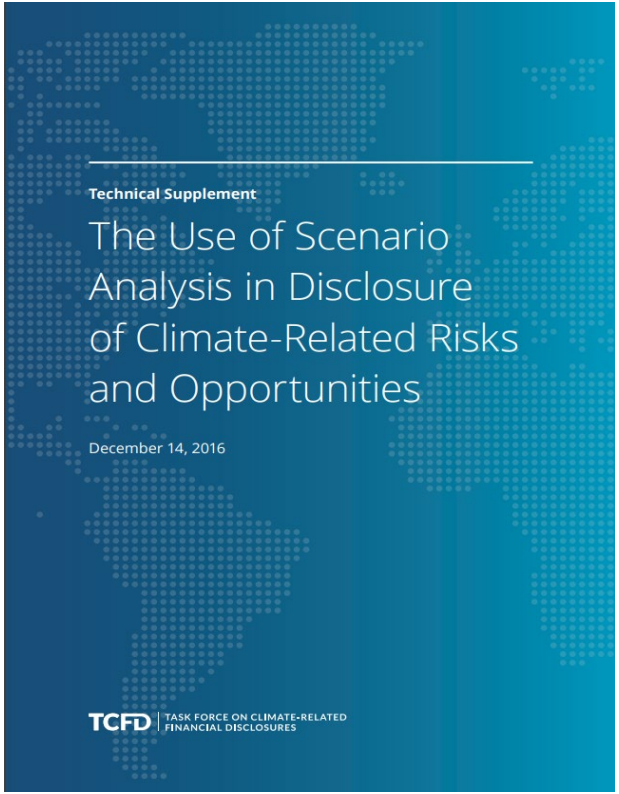
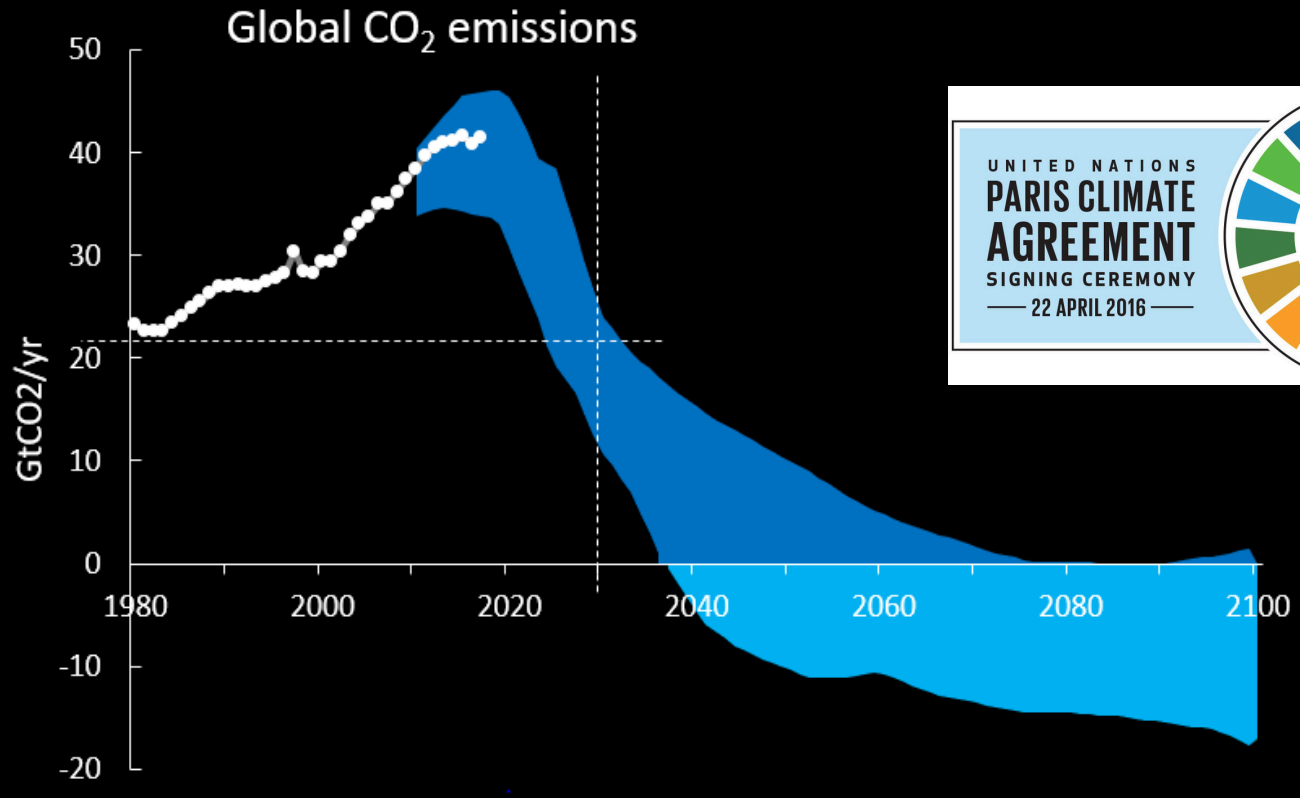
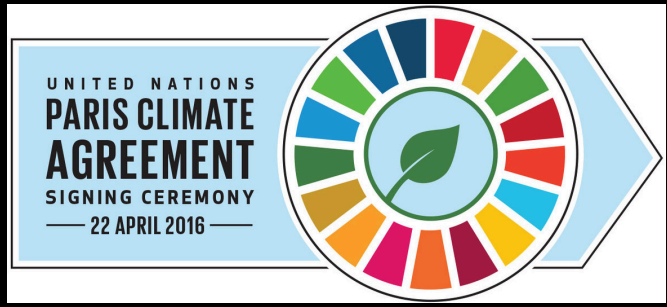
https://www.scor.com/en/search/site-list

Task Force on Climate-Related Financial Disclosures (TCFD)



Transitioning to a low carbon economy – what's all the fuss about?





Source: Dr. Emily Shuckburgh, Environmental Data Science Group, Cambridge University

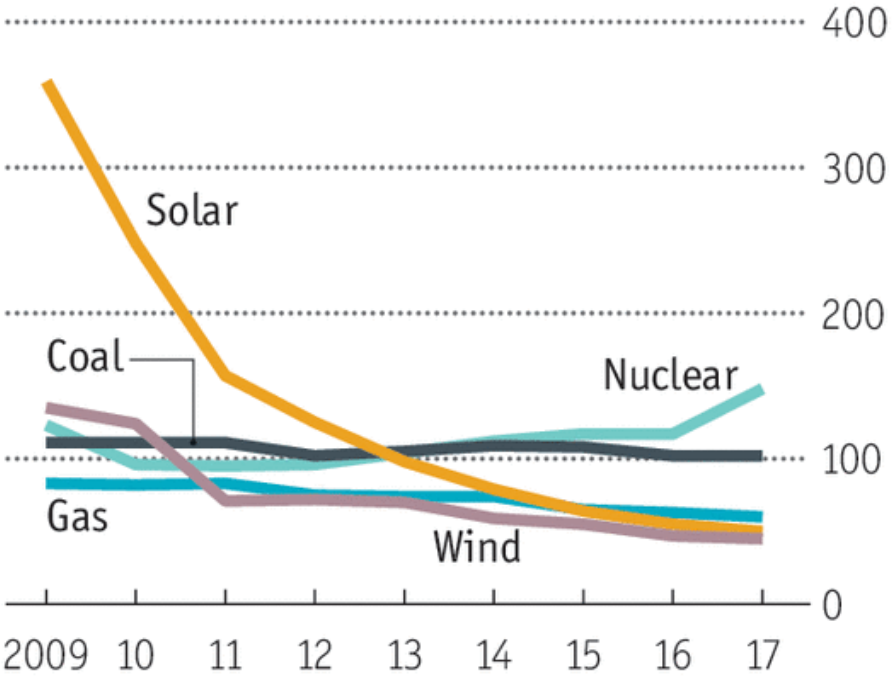

I HAVE A DREAM
LA CONTRAREVOLUCIÓN ES UN ESTADO DE GUERRA ENTRE EL HOMBRE Y LA TIERRA
#CREAREVOLUCIÓN
QUAND LA PLANÈTE ON PEUT LA REBOOT
LA PLANETE EST PLUS CHAUDE QUE MEUF
ARRÊTE DE NIQUER
VERT DE TERRE
Y'A PAS QUE POUR SAUVER LA
#strikeforfuture
PLANETE
SKOLSTREJK FÖR KLIMATET
GRÈVE MONDIALE
FUTUR

Could climate change disrupt the laws of diversification?

Clean equals cheap

North America, average cost of energy

$ per MWh



Source: Lazard, levelised cost of energy analysis


Ice (2017)
Ice in 1980
Northwest passage
Other routes
Alaska
RUSSIA
CANADA
Greenland
UNITED STATES

Incentivising an energy transition

Mining scoring grid

		Criteria	
Company level	CSR	Sustainability information	CSR agency rating
Insured assets level	Activity	% of revenue from thermal coal activities	Volume of thermal coal produced per annum (Million Tons)
	Quality	Metallurgical / thermal / Lignite	
Company level	Trend	Coal activity: Decreasing, Stable, Increasing	
	Industry Standard	International Council on Mining & Metals Member	

Power Scoring Grid

		Criteria	
Insured level	Generation	Share of coal in energy production	Share of renewables in energy production
	Technology and coal	Types of technology used	Type of coal used
Company level	CSR	Sustainability information	Trend on renewables production
	Moral Responsibility	Country where plant(s) located (Developing vs. mature economies)	Resources available (local coal vs. imported coal)

An ‘orderly’ transition…

- *‘Axa has broken new ground by not only divesting from 25 tar sands companies but also from three major pipelines needed to deliver their oil to market and byending the insurance it provides, a total of €700m. The company declined to name the pipelines but it is understood they are major pipelines in North America.’*
- *‘Chubb has ruled out selling new insurance policies to companies which build or operate coal power plants, or those which generate more than 30% of their revenue from coal mining or supplying coal-fired electricity.’*
- *‘From July 1,QBE will no longer offer any new direct insurance services for construction projects for thermal coal mines, coal-fired power stations or thermal coal transport infrastructure, it said.’*
- *‘Suncorp, which owns insurance brands AAMI and GIO, said it will no longer insure new thermal coal mines and power plants, and will not underwrite any existing thermal coal projects after 2025.’*
- *‘Zurich generally will no longer underwrite or invest in companies that: generate more than 30% of their revenue from mining thermal coal, or produce more than 20 million tons of thermal coal per year; generate more than 30% of their electricity from coal; are in the process of developing any new coal mining or coal power infrastructure; generate at least 30% of their revenue directly from the extraction of oil from oil sands; are purpose-built (or dedicated) transportation infrastructure operators for oil sands products, including pipelines and railway transportation; generate more than 30% of their revenue from mining oil shale, or generate more than 30% of their electricity from oil shale.’*

Climate Risk Partner

Transition Risk Partner